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ABSTRACT

Evaluated was the effectiveness of three training procedures (imitation training, imitation training with praise, and imitation training with points for an art supply contingency) in improving the oral reading accuracy and reading comprehension of a 13-year-old girl whose functional reading was at the second grade level. The procedures were sequentially introduced during triweekly tutoring sessions, and S's responses were measured. Following the introduction of contingent praise for correct responses, S scored above 90 percent in reading accuracy and 80-90 percent in reading comprehension at the fourth and sixth grade levels. No significant change in behavior was demonstrated after the introduction of contingent points for art supplies. (LH)

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The Effects of Contingent Praise Upon the Achievement of a Deficit Junior High School Student in Oral Reading Accuracy in Probes Above Her Functional Grade Level

by

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Introduction

Proficiency in reading is essential, or at the very least, strongly helpful as a tool in order for each individual of our society to experience a successful life. In our verbally rich environments, there are many valuable informational inputs to each of us in the form of the written word. Children who reach Junior High School and have not learned to read above the second or third grade level are at a severe disadvantage. Many subject areas at this level rely upon text books as a major source of information for the child. How much information he can extract from his text books in social studies, language, or science will be directly proportional to his reading level. At this point in time a child who is deficit in reading needs help urgently or most of his subsequent school experience will be one of failure. Also, there is comparatively little time left for him to learn how to read as most high schools have no reading programs. Therefore, such being the case, it is of paramount importance to employ a learning procedure that will enable the child to progress in reading at a maximum rate.

Klann, Kinsman, and Egner (1972) use reading probes to assess a child's actual grade level even though he was apparently at a functional grade level of two or three years lower. This was shown to be a successful method to increase a deficit reading rate, in terms of both accuracy and comprehension. They also demonstrated that systematic prompting and social reinforcement (such as praise and smiles for correct responses) was highly effective to increase word recognition.

Successful probing procedures were also used in a study by Burns, Egner, and Paolucci (1972) in which a seventh grade student progressed from a 1.6 grade level to a 4.3 grade level in only 52 sessions.

Klann and Hesslink (1971) allowed students to learn one word from a higher grade level for each word which was learned at functional grade level. This served as a reinforcing procedure for the student.

METHOD

Description of the Student and Problem

The student was a 13 year old girl enrolled in the senenth grade at the Lyman Hunt Junior High School in Burlington, Vermont. Since she had repeated first grade, her [illegible]pected grade level was 8.4. At the end of the sixth grade, the student was reading with 90% to 100% accuracy in a Ginn reader at 2.2 level. Previous teachers stated that the student "showed little interest" in reading and in their judgement displayed social behaviors inappropriate to the classroom setting. The student on occasion seemed to realize that she needed to become a better reader. She expressed this to her present reading teacher and indicated the desire to have extra help to improve her reading skills.

Entry Level Measures

The student was asked to read three stories from each of six

books from the Reading for Concepts* levels A through F. The stories selected were the first, middle and last in each book.

Oral Reading Accuracy was recorded by tallying the number of errors in each story on a data sheet. An error was defined as a longer than three second delay in saying a word, incorrect naming of a word, additions, omissions, or repetitions. The point at which the student read with less than 90% accuracy in the highest grade level book was considered the entry level, provided she could read the story just prior to it with 90% to 100% accuracy.

Word Recognition. The word list at the end of each book was used to assess recognition. Beginning with the first word on the word list of Book A and proceeding with lists from subsequent books of this series, the student was asked to say each word. If the word was said within a three second interval, a plus (+) was recorded in the appropriate box on the data sheet. If the response was incorrect or the word was not said within the specified time, a zero (0) was recorded. This procedure was continued until the student missed five words in succession. This was considered the student's entry level.

Reading Comprehension was evaluated by the following procedure. After each story five of the eight comprehension questions listed at the end of each story were orally asked. The student responded orally. An error was considered an incorrect response or no response within five seconds.

*Liddle, William. Reading for Concepts. New York: McGraw-Hill Co., 1970.

Terminal Objective

Given a book at the seventh grade level from the Reading for Concepts Series (McGraw-Hill, Inc., 1970), the student will read with 90% to 100% oral reading accuracy and orally answer the comprehension questions on the material read, with 80% to 100% accuracy.

Daily Measurement and Reliability Procedures

Oral reading accuracy. A record was kept on a data sheet which indicated the number of reading errors and the percentage of reading accuracy for each story. The percentage correct was computed by dividing the number of errors by the total number of words read in each story or the number of words read in that part thereof and multiplying by 100. The percentage was then plotted on a graph to provide a convenient pictorial record of the student's performance.

Word accuisition. A record was kept on the data sheet indicating the number and percentage of correct responses for each session. This was calculated by dividing the number of words said correctly by ten (the number of words asked during each session) and multiplying by 100.

Reading comprehension. A record was kept of the number of correct responses made by the student to each of five questions about the story. A percentage of correct responses was computed by dividing the number of correct responses by five and multiplying by 100. This percentage was then plotted on a graph to provide a

convenient, pictorial record of the student's progress.

Reliability of measurement procedures was obtained by having another person observe the tutor at random sessions. The percentage of reliability was calculated by dividing the number of agreements between the tutor (O_1) and the second observer (O_2) by the sum of the number of agreements and disagreements and multiplying by 100.

Teaching/Learning Procedures

Baseline. Tutoring took place for 30 minutes before school on three separate days each week. Two consecutive 15 minute sessions were conducted during each 30 minute period. Five minutes of a session were used for word acquisition, five minutes for oral reading and five minutes for comprehension questions.

Word Acquisition Procedures. Ten words in the current story or in stories to be read in upcoming sessions were printed upon ten 5" x 7" cards. A prompt-imitate-reinforce procedure, as described by Burdett and Fox (1972), was used for words which the student did not know.

Oral Reading. During the next five minutes, the student read aloud. For errors or pauses longer then three seconds, the tutor provided the correct response which was imitated by the student. If the student did not complete the story within the allotted time interval, she was asked to stop and go on to the activity planned for the last five minutes.

Reading Comprehension. This activity was completed during the last five minute interval for each story. The student was asked ten questions about the story or that part of the story which she read in the allotted time.

During the second fifteen minute segment the student read another story under the procedures described above.

Experimental Conditions. The same procedures as described in the baseline condition were used in this phase with the following additions:

1. Oral reading and word recognition contingency. Beginning with session 20, each time the student responded correctly to flash-card words and comprehension questions she was enthusiastically praised. Upon the completion of a story with 90% accuracy, she was also vigorously praised and complimented. Praise was offered as described above contingent upon the stated conditions. It was withheld if the student did not meet the criteria.

2. Comprehension contingency. Beginning with session 28, the student earned one point for each comprehension question she answered correctly. Points could be traded in for art paper (10 points for one piece of paper). The criterion for comprehension was changed from 80% to 90%.

Materials

Liddle's Reading for Concepts (1970) was used. The series consisted of eight books that ranged from a reading level of 1.6 (Book A) to a maximum level of 6.7 (Book H). The latter book was recommended for use in grades seven or eight by the publisher. A story

had an average of 155 words in it. At the end of each story were eight comprehension questions. The questions were either fill-in or multiple choice. Two additional questions were generated by the tutor to make a total of 10.

Evaluation Design

1. Oral reading: The baseline procedures of imitation training and the experimental condition of imitation training with praise were sequentially introduced in an AB design to evaluate the effectiveness of Imitation Training (the independent variable) upon the dependent variable (oral reading accuracy).

2. Reading comprehension: Baseline procedures and the two experimental conditions of reinforcement by the use of praise for each correct response and points for an art supply contingency were introduced sequentially in an ABC design. This was done to evaluate the effectiveness praise, the independent variable in condition B, and points for art supplies, the independent variable in condition C, upon the dependent variable, reading comprehension.

Reliability Results

A second observer obtained independent and concurrent measures of the student's responses on seven occasions. Reliability was 97.4% for oral reading accuracy. Reliability was 100% for reading comprehension.

RESULTS

The student was involved in three reading probes in each of books A through F. She scored below 90% oral reading accuracy on two occasions in Book D (4.2) and on three occasions in Book F (5.5). Figure 1 shows that after intervention of the experimental condition of contingent praise for correct responses, the student scored above the 90% reading accuracy level on all but one occasion in Book D and on all occasions in Book F. A concurrent change in reading comprehension to a consistent level of 80% to 90% occurred upon the introduction of contingent praise.

During the introduction of condition C, a contingent point for art supplies for each correct response to a comprehension question, the student demonstrated no significant change in behavior. Figure 2 shows that the student's comprehension remained above 80% but did not remain above the changed criterion line of 90%.

DISCUSSION

Upon the receipt of the referral of this student due to her large deficit in reading, the most frequently employed method of bringing her from story to story and from book to book at higher levels, until she reached grade level, was viewed as an undesirable procedure. This was because of the probable great length of time which would be consumed. Therefore, alternatives to this procedure were sought. It was decided that probing to grade level, because much less time would be consumed, should be attempted.

It became apparent as this study progressed that as Wolf, et al., (1968) suggested, a deficit student may achieve success on levels higher than expected of him, through the use of contingent reinforcement of a higher level of academic behavior. It can be observed (Figure 1) that concurrent changes to a higher level of achievement to place in both Book D and Book F. This suggests that strong consideration should be given to viewing academic behaviors as a function of contingencies of reinforcement and that skipping levels through probing to actual grade level should be seriously studied further.

It is felt that the changing criterion introduced to increase the student's level of comprehension may have been shown to be effective if the tutoring program could have been extended for several more sessions.

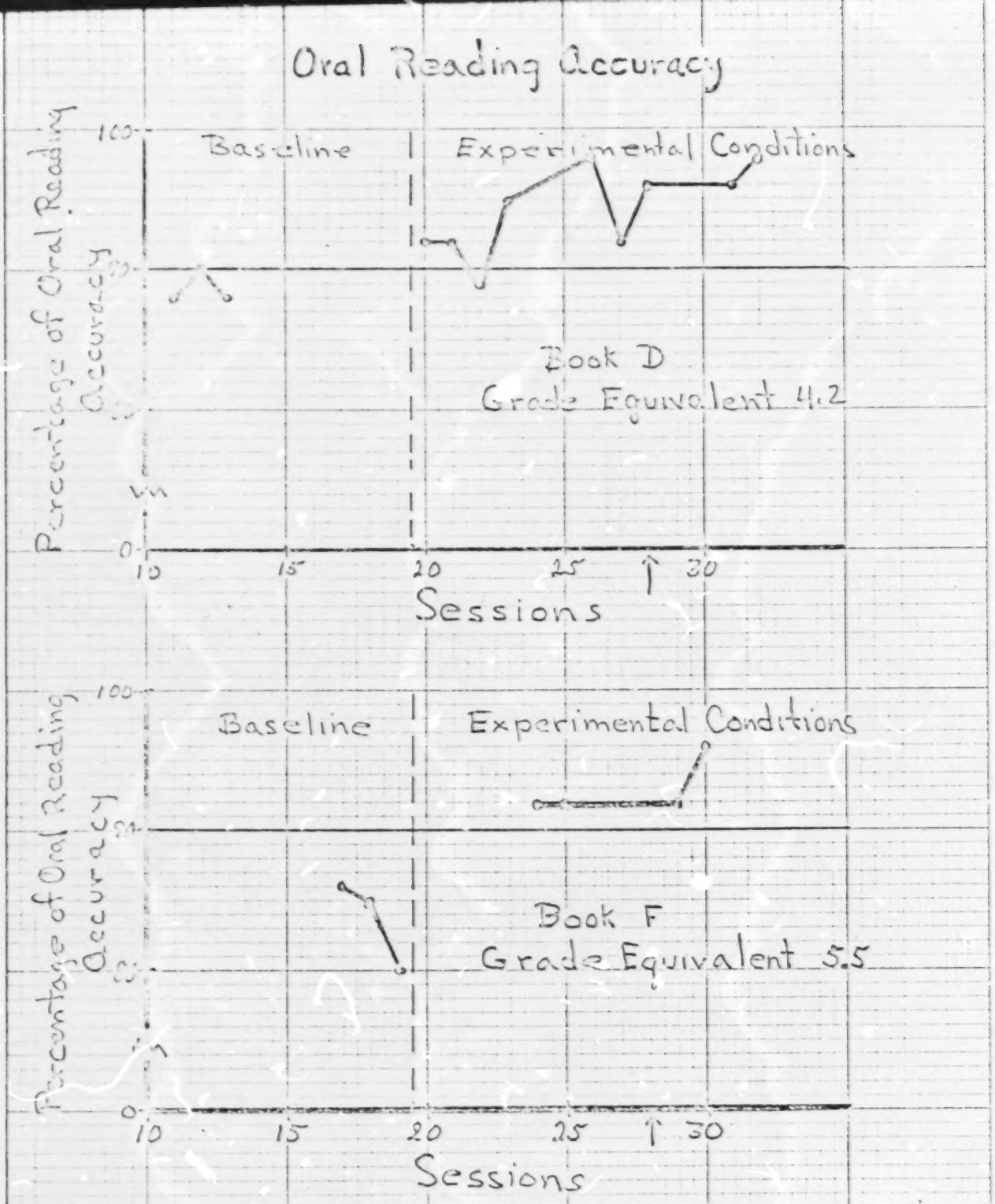

Figure 1. The graphs of the student's oral reading accuracy in Book D, grade equivalent 4.2 (upper graph) and in Book F, grade equivalent 5.5 (lower graph). Arrows indicate art supply contingency for reading comprehension.

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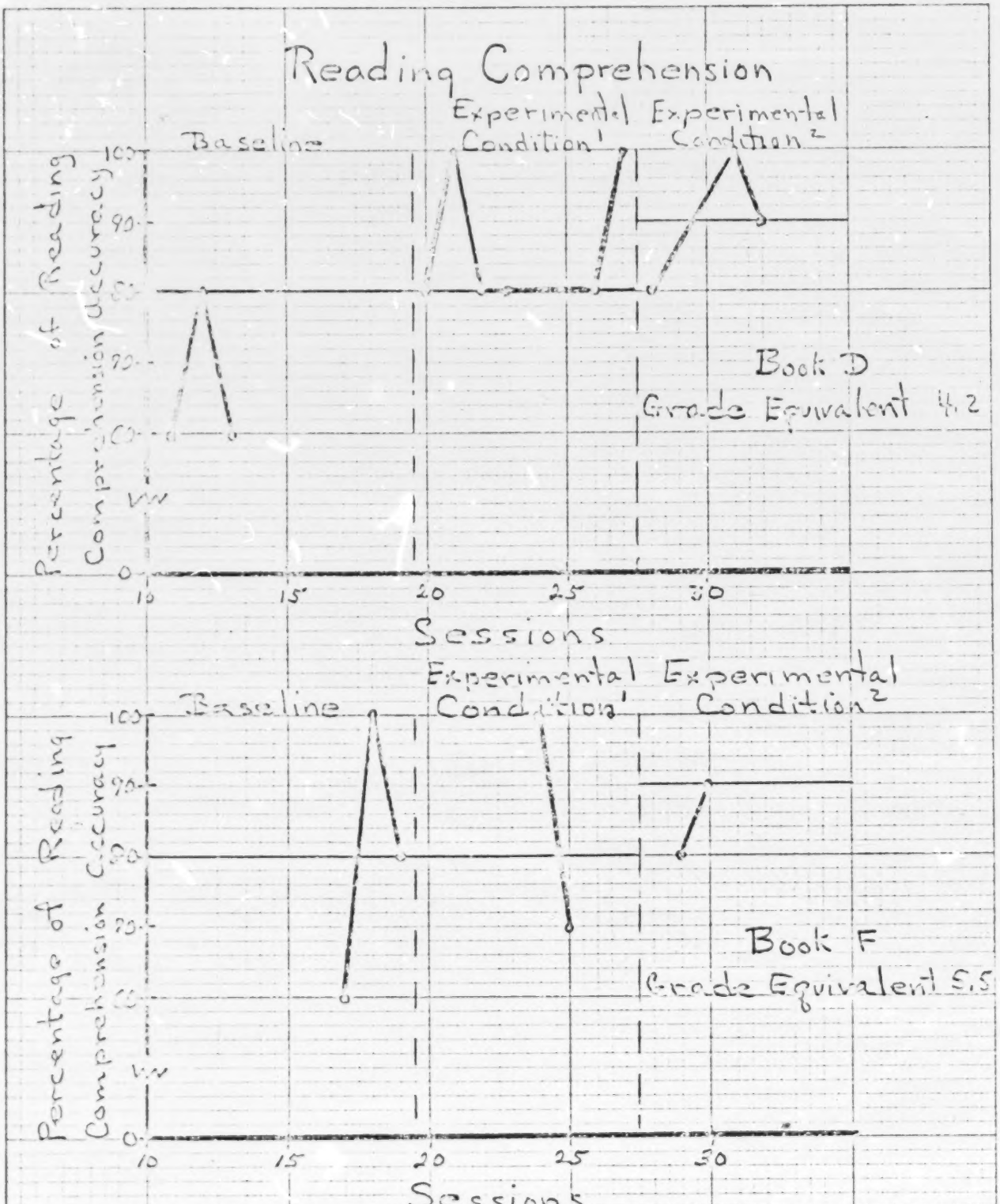

Figure 2. Graphs of a seventh grade girl's reading comprehension accuracy in Book D, grade equivalent 4.2 and Book F, grade equivalent 5.5. Experimental condition 1 involved the introduction of contingent praise. Experimental condition 2 involved the introduction of an additional contingency of art supplies

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